

1. Matt Mitarnowski has a square garden that is completely surrounded by an old, rickety fence. He plans to tear down the old fence and make his new square garden 5 times the area of his old garden. If the old fence has a total length of 60 ft, about how long will the new fence be? Determine the total approximate length of the new fence and the area of the new garden. Show your work using words, numbers and/or diagrams, and fully explain how you arrived at your answer.

2. Fuzzy Jeff plans to rent a canoe. The prices of renting a canoe from 2 different stores, Matt Mitarnowski's Canoes and Shecky's Canoe Shack, are shown below:

Matt Mitarnowski's Canoes: \$25 flat fee plus \$7 per hour

Shecky's Canoe Shack: \$15 per hour

A. For each store, write an equation that describes the relationship between the number of hours ( $h$ ) a canoe is rented and the total cost ( $c$ ).

B. Calculate the cost to rent a canoe from each store for 9 hours.

C. Fuzzy Jeff wants to spend no more than \$50 to rent a canoe. From which store should he rent a canoe to get the greatest number of rental hours for his money?

Show all your work. Explain why you did each step.